UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
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ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA GEORGIA 30303-8960

July 9, 2010

Chief, Rulemaking and Directives Branch
Office of Administration
Mail Stop: TWB-05-B01M
U.S. Nurclear Regulatory commission
Washington, DC 20555-0001

RE: EPA Review and Comments
Draft Environmental Impact Statement (DEIS) for the
Combined Licenses (COLs) for Virgil C. Summer Nuclear Station (VCSNS) Units 2 and 3
Construction and Operation of a New Nuclear Power Generating Facility
NUREG-1939
CEQ No. 20100144

Dear Sir:

The U.S. Environmental Protection Agency (EPA) has reviewed the subject Draft Environmental Impact Statement (DEIS) pursuant to Section 102(2)(C) of the National Environmental Policy Act (NEPA), and Section 309 of the Clean Air Act. The purpose of this letter is to inform you of the results of our review, and our detailed comments are enclosed.

South Carolina Electric and Gas (SCE&G) in conjunction with Santee Cooper (the State owned electric and water utility) applied for combined construction permits and operating licenses (combined licenses or COLs) for Virgil C. Summer Nuclear Station (VCSNS) Units 2 and 3. The proposed actions are:

- NRC issuance of COLs for two new nuclear power reactor units (Units 2 and 3) at the VCSNS site in Fairfield County, South Carolina.

- U.S. Army Corps of Engineers (USACE) permit action on an Individual Permit application pursuant to Section 404 of the Clean Water Act, to perform certain activities on the site.

The DA permit would allow permanent filling of approximately 0.26 acres of wetlands and disturbance of 774 linear feet of streams, as well as the permanent conversion of 224.2 acres of forested wetlands to nonforested wetlands because of new transmission lines connecting the VCSNS facility to the electrical grid.

VCSNS Units 2 and 3 would withdraw water from the Monticello Reservoir, which currently supplies water to Unit 1. Cooling water blowdown would be discharged to the Parr Reservoir. A water treatment facility discharging into the Monticello Reservoir is planned for the new units.

The DEIS discusses the proposed action and alternatives. Alternatives include the construction and operation of two new reactors at the VCSNS site or at alternative sites, the no-action alternative, energy source alternatives, system design alternatives, and onsite alternatives to reduce impacts on natural and cultural resources. The DEIS states that none of the alternative sites were determined to be environmentally preferable to the VCSNS site.

Environmental concerns include impacts to surface water resources and wetlands. EPA also has concerns regarding groundwater quality, since sampling data showed an exceedance of SCHEC drinking water standards regarding nonradiological parameters and Gross Alpha radiation. Tritium was detected in surface water, but at levels below national primary drinking water standards.

EPA has reviewed the impacts to wetlands and streams in response to the COE's public notice for the Clean Water Act Section 404 permit application, and has transmitted a separate letter in accordance with Section 404 coordination procedures. We note that the Joint Public Notice was for the impacts from the new units only, and does not include the associated transmission lines. The applicant has estimated that construction of the transmission lines will permanently convert 224.2 acres of forested wetlands to nonforested wetlands.

The applicant is required to submit a Clean Water Act Section 404 permit application for the wetlands impacts related to construction of transmission lines. Pursuant to EPA's meeting with you, the USACE and the applicant on July 1, 2010, we understand that a revised public notice will be published to include the estimated wetlands impacts related to transmission lines. EPA is concerned about these impacts, since transmission line construction may result in habitat fragmentation, opening new corridors to off-road vehicle traffic, stream corridor impacts and other ecological impacts. Transmission line impacts on area residents and EJ communities are another area of concern. We recommend that the public outreach process particularly include public disclosure and opportunity for public comment regarding these transmission lines.

Radioactive waste storage and disposal are ongoing concerns with existing and proposed nuclear power plants. In the Waste Confidence Rule (10 CFR 51.23), the Commission generically determined that the spent fuel generated by any reactor can be safely stored on-site for at least 30 years beyond the licensed operating life of the reactor. Ultimately, long-term radioactive waste disposition will require transportation of wastes to a permitted repository site.

Since appropriate on-site storage of spent fuel assemblies and other radioactive wastes are necessary to prevent environmental impacts, EPA believes the FEIS should provide a thorough consideration of impacts resulting from such storage. The DEIS notes that planning is in progress regarding a repository for high-level and transuranic wastes. However, given the uncertainty regarding ultimate disposal at a repository, on-site storage may continue for many years.

Additional discussion of on-site storage plans and ultimate disposition of radioactive wastes generated from the site, as well as continuing measures to limit bioentrainment and other impacts to aquatic species from surface water withdrawals and discharges, should be addressed as the project progresses. Compliance with the NPDES Permit should be addressed for the existing

and new units. The NPDES permittee has operated and is currently operating in compliance with the NPDES permit requirements for the existing Unit 1.

The FEIS should include further information regarding plans to reduce Greenhouse Gases (GHGs) and other air emissions during construction and operation of the facility. Specifically, energy efficiency should be a consideration in the construction and operation of facility buildings, equipment, and vehicles.

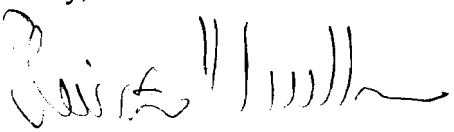
In regard to historical and community resource concerns, we note that a management agreement is pending with the State Historic Preservation Office (SHPO). The DEIS states that no unavoidable adverse Environmental Justice (EJ) impacts would occur. However, clarifying information regarding the EJ data, plans for community involvement, and anticipated impacts to the community and EJ populations from transmission lines should be included in the FEIS.

The DEIS states that impacts to members of the public from operation, including etiological (disease-causing) agents, noise, electromagnetic fields, occupational health and transportation of materials would be minimal due to controls and measures associated with compliance with Federal and State regulations.

Based on EPA's review of the DEIS, the document received a rating of EC-2, meaning that the EPA review identified environmental impacts that, if avoided, would more fully protect the environment. (A summary of EPA's rating definitions is enclosed.) In particular, EPA recommends that the Final EIS (FEIS) include updated information about transmission line impacts, and the status of the 404 permitting process. In addition, clarification of the source of nonradiological parameters which exceeded SCDHEC drinking water standards in sampling data, as well as impacts related to radiological contaminants, particularly tritium, should be addressed in the FEIS. Also, updated sampling data, if available, should be included. The FEIS should include a discussion of opportunities to reduce GHG and other air emissions during construction and operation of the facility.

Thank you for the opportunity to comment on this DEIS. We look forward to reviewing the FEIS. If you have any questions or need additional information, please contact Ramona McConney of my staff at (404) 562-9615.

Sincerely,



Heinz J. Mueller, Chief
NEPA Program Office
Office of Policy and Management

Cc: Richard Darden, USACE

Enclosures: EPA Review and Comments
Summary of Rating Definitions and Follow Up Action

EPA Review and Comments Regarding
Draft Environmental Impact Statement (DEIS) for the
Combined Licenses (COLs) for Virgil C. Summer Nuclear Station Units 2 and 3
Construction and Operation of a New Nuclear Power Generating Facility
(NUREG-1939)

Alternatives

A suite of alternatives was evaluated in the DEIS, including the no-action alternative, energy source alternatives, alternative sites, system design alternative and onsite alternatives for reducing impacts.

Construction of transmission lines is estimated to convert 224.2 acres of forested wetlands to non-forested wetlands. EPA has concerns about the transmission line impacts, and we note that the Clean Water Act Section 404 permit application has not yet been submitted for transmission line impacts. We understand that a revised public notice is pending, and will include the estimated wetlands impacts related to transmission lines. The alternatives analysis in the DEIS includes transmission line corridor impacts for each alternative. We recommend that the FEIS contain updated information regarding transmission line construction plans as they relate to wetlands impacts and habitat fragmentation.

Supporting infrastructure

The supporting infrastructure at the site includes additional new facilities: roads, railroad lines, and buildings. New buildings associated with proposed Units 2 and 3 include the water-treatment plant, sanitary waste treatment plant, and power transmission system. Diesel generators would be installed as a backup power source. This construction should be considered part of the project, and the impacts of these actions are direct project impacts.

We reviewed the listing of permits required for the project in Appendix H, and note that no permits have been issued under the NRC's Limited Work Authorization (LWA) permitting process at this time. The DEIS (Volume 1, page 1-5) states that *"...Activities associated with building the plant that are not within the purview of the NRC action are grouped under the term 'preconstruction',"* and Appendix H describes LWA permitted activities as *"safety-related construction activities."*

We note that transmission lines are listed in the example of "preconstruction" activities in the DEIS (Volume 1, page 1-5), which also states that preconstruction activities are considered in the context of cumulative impacts. EPA is concerned about the impacts of transmission lines and supporting infrastructure for the project and, in accordance with NEPA, considers these activities as part of the project, and not a separate action.

Radioactive wastes

The DEIS states that SCE&G implemented a waste minimization plan to reduce the amount of mixed waste produced onsite. SCE&G stated *"...the treatment, storage, and disposal of mixed wastes generated by the proposed Units 2 and 3 would be managed as the existing Unit 1 mixed wastes is managed,"* (Volume 1, page 5-76). The document should define how existing Unit 1 mixed wastes are being managed, along with a reference to documentation regarding the procedures of the mixed waste management program. The reference section at the end of Chapter 5 should also include this reference.

Appropriate on-site storage of spent fuel assemblies and other radioactive waste is necessary to prevent environmental impacts. The DEIS notes that planning is in progress regarding a repository for high-level and transuranic wastes. However, given the uncertainty regarding ultimate disposal at a repository, on-site storage may continue for a longer term than currently expected.

In the Waste Confidence Rule (10 CFR 51.23), the Commission generically determined that the spent fuel generated by any reactor can be safely stored on-site for at least 30 years beyond the licensed operating life of the reactor.

The DEIS states that unavoidable adverse air quality impacts would be negligible, and that pollutants emitted during operations would be insignificant (Volume 1, page 10-11).

Estimated Risks

Section 5.11.2.4, *Estimated Risks of Releases Related to External Events*, addresses seismic events, but does not mention the risk of releases due to terrorists attacks such as planes crashing into containment and/or other possible attacks. Risk assessment data for these scenarios should be calculated and described in this section in accordance with NRC guidelines.

Greenhouse Gases

EPA recommends that the discussion of mitigation in the FEIS consider opportunities to reduce Greenhouse Gases (GHGs) and other air emissions during construction and operation of the facility. Specifically, energy efficiency should be a consideration in the construction and operation of facility buildings, equipment, and vehicles. Equipment and vehicles that use conventional petroleum (e.g., diesel) should incorporate clean diesel technologies and fuels to reduced emissions of GHGs and other pollutants and should adhere to anti-idling policies to the extent possible. Alternate fuel vehicles (e.g., natural gas, electric) are also possibilities.

We disagree with the Review Team's conclusion in Section 7.6.2 that *"... the national and worldwide cumulative impacts of greenhouse gas emissions are noticeable but not destabilizing"*. Since this conclusion is not in agreement with assessment literature on climate change science, we recommend that this statement be appropriately revised in the FEIS. As the DEIS notes in Section 2.9.1 *"... EPA determined that potential changes in climate caused by greenhouse gas (GHG) emissions endanger public health and welfare (74 FR 66496)."*

Carbon dioxide (CO_2) builds up in the atmosphere over time from emissions from many global sources and has a relatively long atmospheric lifetime (50-200 years). As such, we believe that the DEIS's rationale for not taking reasonable actions to minimize GHG emissions where possible at all phases of the project (i.e., the small size of the plant's construction and operation GHG emissions to total U.S. annual GHG emissions) is not warranted.

The DEIS concludes that nuclear power results in significantly lower CO_2 emissions than coal or natural gas-fired generation. To the extent that this particular facility will result in lower emissions than a given alternative, EPA recommends that the discussion state that lower CO_2 emissions overall would result in lower climate change risks.

(See CEQ's Draft NEPA Guidance on Consideration of the Effects of Climate Change and GHGs: http://www.whitehouse.gov/sites/default/files/microsites/ceq/20100218-nepa-consideration-effects-ghg-draft-guidance.pdf, which discusses the uses of GHG emission levels as a reasonable proxy for potential climate change impacts.)

Section 6.1.3 describes 5.3E+7 metric tonnes of CO_2 (total carbon footprint including construction, 40 year lifespan, and decommissioning) for the fully operating plant as "small" for a carbon footprint for a facility with three reactors. That said, the carbon emissions associated the fossil fuel-based enrichment of uranium alone are actually quite comparable to the emissions of a smaller size fossil fuel-based power plant.

For example, assuming this project has a uranium fuel cycle footprint (as stated in Appendix J) of 1.4E+07 (for a 40 year lifespan for one reactor), such emissions are comparable to those exhibited by smaller coal fired power plants in South Carolina in 2007, (assuming the 2007 year emissions are comparable from year to year for 40 years). Specifically, in 2007 the emissions for the highest and lowest emitting coal plants were:

- Plant Cross (highest CO_2 emitter in 2007):
(1.2E+07 MT CO_2/y)(40y) = 4.8E+08 MT CO_2

- Plant Dolphus M. Grainger (lowest CO_2 emitter in 2007):
(8.9E+05 MT CO_2/y)(40y) = 3.6+07 MT CO_2

[*Reference:* America's Biggest Polluters, Carbon Dioxide Emissions from Power Plants in 2007. Environment America Research and Policy Center. November 2009. http://www.environmentamerica.org/home/reports/report-archives/global-warming-solutions/global-warming-solutions/americas-biggest-polluters-carbon-dioxide-emissions-from-power-plants-in-2008]

The emissions associated with the lower end of this range (3.6E+07 MT CO_2) are comparable to the 40 year emissions of just one nuclear reactor (1.4E+07). When additional reactors are included, the plant's carbon footprint will be even more comparable to that of a smaller coal-fired plant. Thus, the DEIS statement in Section 9.2.4 that *"Among the viable energy-generation alternatives, the CO_2 emissions for nuclear power are a **small fraction** of the emissions of the*

other viable energy generation alternatives" [emphasis added] does not convey an accurate picture of the full lifecycle CO_2 emissions of the nuclear generation process.

(We also note that Section 6.1.3 states *" In Appendix J, the staff estimates that the carbon footprint of the fuel cycle to support a reference 1000-MW(e) LWR for a 40-year plant life is on the order of 1.8 x 10^7 MT of CO_2"* while Appendix J lists this value as 1.4 x 10^7 MT of CO_2. Also, the CO_2 footprint for decommissioning stated in Section 6.3 does not match the values given in Table J-3.)

Wetlands and Streams

EPA reviewed the impacts to wetlands and streams in response to the COE's public notice for the Clean Water Act Section 404 permit application, and transmitted a separate letter in accordance with Section 404 coordination procedures. The public notice relates solely to impacts related to construction of the new units, and does not include transmission line construction impacts. The DEIS states that 221.1 acres of wetlands would be impacted by construction of the new transmission lines.

The applicant is required to submit a Clean Water Act Section 404 permit application for the wetlands impacts related to construction of transmission lines, and the DEIS notes that these impacts would include conversion from forested to non-forested wetlands. The conversion of forested wetlands to non-forested wetlands constitutes a functional change in wetland type; any reduction in wetland functions will need to be compensated for. Transmission line construction may also result in habitat fragmentation, opening new corridors to off-road vehicle traffic, and other ecological impacts. EPA is concerned about these impacts and reserves the right to comment further on this issue. We understand that the applicant proposes to mitigate impacts by purchasing credits from mitigation banks.

The FEIS should include a conceptual compensatory mitigation plan that demonstrates that these losses in ecological functions will be replaced. In addition, the FEIS should identify the least environmentally damaging practicable alternative (LEDPA) and demonstrate how the preferred alternative has avoided wetlands and other water impacts to the maximum extent possible.

Surface Water

VCSNS Units 2 and 3 would obtain water for the cooling water systems from the Monticello Reservoir, which is hydologically connected to the Broad River. Two new intake structures are proposed. Under average conditions, 27,160 gpm of cooling water would be lost through consumptive use (evaporation) during operation. Closed-cycle cooling towers would dissipate heat from the cooling and service water systems. Water released from proposed Units 2 and 3 would flow through a pipeline to a discharge structure (outfall) on the Parr Reservoir.

The DEIS states that an assessment of the water-quality impacts on the Parr Reservoir and the Broad River from discharge of Units 2 and 3 showed that both the thermal impacts and the impact of discharging solutes and solids concentrated through evaporation in the cooling towers would be minimal and localized to the zone defined by the thermal plume, (page 7-13). The FEIS should

clarify if the thermal discharge will meet state water quality standards or whether they will need to apply for a Clean Water Act section 316(a) thermal variance (which will require a demonstration that any alternative limit is more stringent than necessary to propagate a balanced, indigenous population in the Parr Reservoir).

In addition, the FEIS should contain detailed information regarding compliance with Clean Water Act section 316(b) cooling water intake structure requirements for both the existing cooling water intake structure for Unit 1 and proposed new cooling water intake structures for Units 2 and 3. The discussion should address the integration of existing operations and infrastructure with the operations and infrastructure with the new units. The 316(b) New Facility Rule (40 CFR Part 125 Subpart I) compliance discussion will also need to address the preservation of the natural thermal stratification in the Monticello Reservoir.

Furthermore, the FEIS should also address any additional surface water withdrawal concerns raised by the recent passage of South Carolina's Water Withdrawal Act (H.452).

Drinking water standards

Groundwater sampling data showed levels exceeding SCHEC drinking water standards regarding nonradiological parameters (in 2007) and Gross Alpha radiation (in 2008). The FEIS should clarify whether the exceedance of SCDHEC nonradiological drinking water standards is related to the existing VCSNS Nuclear Station.

Based on the SCDHEC groundwater sampling data in the vicinity of proposed VCSNS Units 2 and 3, groundwater exceeded the SCDHEC State Drinking Water standards in at least one well during a sampling round for the following analyses: sulfates, total dissolved solids, turbidity, total coliform, cadmium, iron, lead, and pH.

The DEIS states that *"Baseline nonradiological groundwater quality was established around the proposed VCSNS Units 2 and 3 location by monitoring that consisted of one round of sampling from nine wells in late August/early September 2006 for a subset of analyses (SCE&G 2009a) and more detailed water-quality analyses from eight wells during the second half of 2007. The 2007 water-quality monitoring consisted of one sampling round for four wells, two sampling rounds for three wells, and three sampling rounds for one well (SCE&G 2009a, ER Table 2.3-36, which was updated in SCE&G 2009q with water-quality criteria). The detailed water-quality monitoring results from 2007 were compared to SCDHEC drinking-water standards (SCE&G 2009a, ER Table 2.3-36 updated in SCE&G 2009q). These standards (Class GB) are available in R.61-68, Water Classifications & Standards (SCDHEC 2008a)."*

The DEIS references the *"DHEC Groundwater and Surface Water Screening Project for Radioactive Constituents around SC Nuclear Power Plants (2009)."* The document describes January and July 2008 groundwater and surface water sampling in the vicinity of VCSNS Nuclear Station; 12 samples total. Tritium was detected in two onsite monitoring wells at levels of 519-2,880 picocuries per liter of water (pCi/L) and in two surface water samples at levels of 248-254 pCi/L. We note that these levels are below the drinking water MCL (20,000 pCi/L as an annual

average). The DEIS mentions that the potential source of tritium was the permitted disposal of condensate polisher resin in the area in 1994.

Gross Alpha radiation was detected in two groundwater samples; one of these samples had levels exceeding the EPA safe drinking water MCL of 15 pCi/L (32.8 pCi/L). This well was sampled again on July 24, 2008 and no Gross Alpha radiation was detected in the follow-up analysis. The FEIS should include updated sampling information, if available.

Aquatic resources

Water intake and consumption impacts on aquatic biota are areas of concern. These impacts are related to the relative amount of water drawn from the Monticello Reservoir (cooling water source), and the potential for small fish and shellfish impingement on the intake screens or entrainment in the cooling-water system. The DEIS describes the results of studies regarding impingement related to existing Unit 1. Since new intakes will be constructed for Units 2 and 3, increased water intake and consumption will occur.

EPA recommends the applicant use a mesh size for the traveling screens for intake cooling water that is appropriate for the size of eggs, larvae, and juveniles of all fish to be protected at the site. The DEIS states that, for the cooling water intake structure for Units 2 and 3, the *"designed through-screen velocity will be less than or equal to 0.5 feet per second (fps) at a minimum elevation of 414 ft Northern American Vertical Datum of 1988."*

EPA determined that *maximum* design intake screen velocity should be less than or equal to 0.5 feet per second in order to reduce impingement of fish. Therefore, the DEIS should specifically address whether the maximum designed intake velocity will be less than 0.5 fps. Surface water withdrawal impacts and impacts to aquatic species during drought conditions are also a concern.

The DEIS also acknowledges that thermal, chemical, and physical effects associated with station blowdown into the Parr Reservoir have the potential to affect the distribution and abundance of some aquatic species. Monitoring should be in accordance with the NPDES Permit.

In addition, stormwater management structures should be designed to prevent introduction of sediments and pollutants into onsite waterbodies and waterways crossed by transmission-line corridors, in order to avoid injury to aquatic biota. The design and operation of the stormwater systems for the proposed VCSNS Units 2 and 3 must comply with NPDES stormwater regulations administered by the SCDHEC.

Endangered Species

The DEIS states that *"No areas designated by FWS as critical habitat exist at the VCSNS site,"* and that SCE&G conducted surveys for threatened and endangered species at the site and found none.

SCE&G stated it will perform detailed ecological surveys for Federal and State-listed threatened and endangered species along the transmission line routes as part of the permitting process prior

to construction. Updated information regarding consultations with the U.S. Fish and Wildlife Service (FWS) and updated ecological survey results should be included in the FEIS.

Historic Preservation

We appreciate the thorough discussion of cultural and historic resources in the DEIS. The DEIS states that SCE&G has agreed to enter into a management agreement with the SHPO to formalize avoidance and protective measures in response to the SHPO's request for a Programmatic Agreement. We also note SCE&G's cultural resources awareness training and inadvertent discovery procedure training for staff working at the site. Consultation between SCE&G and the SHPO regarding the management agreement is ongoing, and the FEIS should include an update of these coordination activities.

Environmental Justice (EJ)

The DEIS states that impacts from the project to EJ communities would be small, and that no unavoidable adverse impacts would occur (Table 10-2). The DEIS (Volume 1, page 10-18) lists benefits of expansion of the VCSNS Nuclear Station, citing maintaining a supply of electricity for consumers, economic stability and growth, societal benefits, fuel diversity, regional productivity, and tax revenue. However, clarification is needed in the FEIS regarding EJ information.

The DEIS examines demographics within Fairfield, Newberry, Lexington, and Richland Counties, as well as the environmental and socioeconomic impacts to minority and low-income populations up to 50 miles from the VCSNS site. Using 2000 Census Data, the DEIS estimated there were 240 block groups with minority populations that exceeded the state or county average by 20% or greater, and 217 block groups with minority populations of 50 percent or greater. In addition, 54 block groups contained low-income populations that exceeded the state or county average by 20% or greater, 14 of these block groups included minority populations of 50% or greater.

The DEIS also examined EJ populations within six miles of the VCSNS site and identified three African American block groups within the area, using Census data. However, non-EJ block groups do not appear to have been identified in this vicinity. Low-income populations were also identified within the six-mile area following discussions with local officials. Based on these findings, additional assessment of the proposed project impacts on these EJ populations were conducted. The details of this data should be discussed in more detail in the FEIS, clarifying the methodology of the data obtained from discussions with local officials, and whether these populations may be particularly affected by this project.

According to the DEIS, large projects like the proposed nuclear stations can affect individual communities, surrounding regions and EJ populations. The people most vulnerable to noise, aesthetics, odors, fugitive dust or localized air pollutants and light include residents living adjacent to the VCSNS site in the towns of Jenkinsville and unincorporated Fairfield County. In addition, increased truck traffic and roadway congestion is also expected to moderately affect Jenkinsville residents and those living along area access roads. NRC has proposed potential mitigation measures to address some of the traffic related impacts.

The DEIS identified approximately 104 residents living within a mile of the project site. EPA believes it important to meaningfully engage the affected communities within the vicinity of the site throughout this project regarding issues that have the potential to impact them. For example, the DEIS indicates that pre-construction and post-construction noise is expected to peak at 100 dBA 50-ft from the equipment. According to the DEIS, these activities will be intermittent, but during certain periods could be scheduled for 24-hour days, 7 days a week. SCE&G expects that noise levels experienced by sensitive receptive receptors living approximately a mile from the site will rapidly attenuate to below 50 dBA and that continuous noise will be lower. The review team also concludes that the noise emanating from the project site could be somewhat muffled to surrounding communities due to the existing topography and the associated impacts would not be significant.

While this may be true, EPA recommends that a community advisory group be established with local residents living within the vicinity of the site, along access roads and transmission corridors. This group should be meaningfully engaged in the decision-making process and informed about the project status and changes. This group should meet periodically with the site management during the development and operation of the proposed project to ensure that issues such as noise, traffic, odor, light, community relations and other issues are appropriately addressed. Project planning should include measures to avoid noise and other community impacts to the extent feasible, and to monitor and mitigate unavoidable community impacts.

Community involvement is especially important given that the pre-construction and construction phases will take over ten years to complete, some of the activities will be conducted day and night, seven days a week and could potentially result in adverse community impacts. The FEIS should clarify whether a community advisory group currently exists, whether complaints have been received from the community regarding the existing facility, and how those issues have been addressed.

According to the DEIS, SCE&G plans to use existing transmission lines and facilities where possible. However, six new transmission lines will be required to connect the new units to the grid, requiring 100-foot widening of some existing transmission corridors and the creation of new transmission line corridors. The EJ section of the DEIS does not include estimates of how many residents this is expected to impact, whether these corridors are in potential EJ areas, or what the anticipated impacts would be. This information should be included in the FEIS.

EPA notes that job training will be provided to residents. However, many of the VCSNS jobs will require specialized skills, and less than ten percent of the jobs are expected to be filled by the residents in the host county. NRC and the applicant should make every effort to ensure that residents nearby have an opportunity to receive training and compete for those jobs. In addition, efforts to work with and improve schools within the vicinity of the project site should also continue, to ensure that existing and future generations are being prepared to fill those jobs.

There was no discussion in the socioeconomic or EJ section of the DEIS regarding potential utility rate increases for area residents, and resulting potential impacts on low-income and minority populations. This issue should be discussed in the FEIS.

In addition, the FEIS should include a discussion of the impacts of the sanitary waste treatment facility, including potential impacts on the community, clarifying whether there could be EJ impacts resulting from effluent discharging to any of the potential discharge locations. The FEIS should also clarify the basis for the conclusion that subsistence fishing, hunting and gardening would not be impacted by the project. Please clarify whether construction activities would have impacts on access to fishing locations, farmlands and hunting areas.

EPA commends NRC on the demographics analysis and use of community surveys to obtain information. We also appreciate the inclusion of EJ maps depicting low-income and minority populations within the project area (figures 2-18 and 17). In addition, it would be helpful to include a distance key in the map.

SUMMARY OF RATING DEFINITIONS AND FOLLOW UP ACTION*

Environmental Impact of the Action

LO-Lack of Objections

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC-Environmental Concerns

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impacts. EPA would like to work with the lead agency to reduce these impacts.

EO-Environmental Objections

The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU-Environmentally Unsatisfactory

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the Draft EIS sate, this proposal will be recommended for referral to the CEQ.

Adequacy of the Impact Statement

Category 1-Adequate

The EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alterative and those of the alternatives reasonably available to the project or action. No further analysis or data collecting is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2-Insufficient Information

The draft EIS does not contain sufficient information for the EPA to fully assess the environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the Draft EIS.

Category 3-Inadequate

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From EPA Manual 1640 Policy and Procedures for the Review of the Federal Actions Impacting the Environment